What is claimed is:

1. A recombinant immunotoxin polypeptide and pharmaceutically acceptable salts thereof comprising a CD3-binding domain and a *Pseudomonas* exotoxin (PE) mutant, said PE mutant having ADP-ribosylating and translocation functions but substantially diminished cell-binding ability.

2. A recombinant immunotoxin polypeptide and pharmaceutically acceptable salts thereof according to claim 1 wherein the CD3-binding domain comprises an anti-CD3 antibody or CD3-binding fragment thereof.

3. A recombinant immunotoxin polypeptide polypeptide and pharmaceutically acceptable salts thereof according to claim 2 wherein the anti-CD3 antibody or CD3-binding fragment thereof binds an epitope on the ε chain of human CD3.

4. A recombinant immunotoxin polypeptide and pharmaceutically acceptable salts thereof according to claim 2 wherein the anti-CD3 antibody or CD3-binding fragment thereof binds an epitope formed by the ε and γ chains of human CD3.

5. A recombinant immunotoxin polypeptide and pharmaceutically acceptable salts thereof according to claim 2 wherein the CD3-binding domain comprises a Fab fragment of an anti-CD3 antibody.

6. A recombinant immunotoxin polypeptide and pharmaceutically acceptable salts thereof according to claim 2 wherein the CD3-binding domain comprises the Fv region, or a CD3-binding fragment thereof, of an anti-CD3 antibody.

7. A recombinant immunotoxin polypeptide and pharmaceutically acceptable salts thereof according to claim 2 wherein the CD3-binding domain comprises monoclonal antibody UCHT-1 or a CD3-binding fragment thereof.

8. A recombinant immunotoxin polypeptide polypeptide and pharmaceutically acceptable salts thereof according to claim 2 wherein the CD3-binding domain comprises the Fv region, or a CD3-binding fragment thereof, of an antibody selected from: monoclonal antibody UCHT-1, an antibody having a variable region which is at least 80% identical to the variable region of UCHT-1, an antibody having complementarity-determining regions identical with those of UCHT-1 and having at least one sequence segment of at least five amino acids of human origin, and an antibody competing with UCHT-1 for binding to human CD3 antigen at least about 80% as effectively on a molar basis, and having at least one sequence segment of at least five amino acids of human origin.

9. A recombinant immunotoxin polypeptide and pharmaceutically acceptable salts thereof according to claim 2 wherein the CD3-binding domain comprises a single chain Fv of an anti-CD3 antibody.

10. A recombinant immunotoxin polypeptide and pharmaceutically acceptable salts thereof according to claim 8 wherein the Fv region is a single chain Fv.

11. A recombinant immunotoxin polypeptide and pharmaceutically acceptable salts thereof according to claim 10 wherein the CD3-binding domain comprises a single chain Fv of UCHT-1.

12. A recombinant immunotoxin polypeptide and pharmaceutically acceptable salts thereof according to claim 1 comprising a single chain Fv of UCHT-1 fused to a PE mutant essentially deleted of its cell-binding domain.

13. A recombinant immunotoxin polypeptide and pharmaceutically acceptable salts thereof according to claim 12 wherein the PE mutant is PE38.

14. A recombinant immunotoxin polypeptide and pharmaceutically acceptable salts thereof according to claim 1 consisting essentially of the single chain Fv of an anti-human CD3 antibody fused via the carboxy terminus thereof to a PE mutant essentially deleted of its cell-binding domain.

15. A recombinant immunotoxin polypeptide and pharmaceutically acceptable salts thereof according to claim 14 having the formula V_L - L - V_H - C - PE mutant.

16. A recombinant immunotoxin polypeptide and pharmaceutically acceptable salts thereof according to claim 15 wherein V_L and V_H are derived from UCHT-1 and the PE mutant is PE38.

17. A recombinant immunotoxin polypeptide selected from polypeptides having residues 1-601, 2-601 and 3-601 of Sequence ID. NO: 1, homologs of said polypeptides which are at least 80% identical thereto, and their pharmaceutically acceptable salts.

18. A recombinant immunotoxin polypeptide according to claim 17 having residues 3-601 of SEQ. ID No:1 and its pharmaceutically acceptable salts.

19. A nucleic acid molecule encoding the recombinant immunotoxin polypeptide of claim 1.

20. A method of preparing a recombinant immunotoxin polypeptide of claim 1.

21. A method for treatment or prophylaxis of T-cell mediated disorders in a patient comprising administering to a patient in need thereof a therapeutically effective amount of a recombinant immunotoxin polypeptide or its pharmaceutically acceptable salt according to claim 1.

22. A method for treatment or prophylaxis of organ transplantation rejection in a transplant patient comprising administering to the patient a therapeutically effective amount of a recombinant immunotoxin polypeptide or its pharmaceutically acceptable salt according to claim 1.

23. A method for treatment or prophyaxis of autoimmune disease in a patient comprising administering to the patient a therapeutically effective amount of a recombinant immunotoxin polypeptide or its pharmaceutically acceptable salt according to claim 1.

24. An autologous therapy for treating or preventing a T-cell mediated disorder or condition in a patient, comprising:

(a) recruiting from the patient a cell population comprising CD3-bearing cells;

(b) treating the cell population with a recombinant immunotoxin polypeptide or its pharmaceutically acceptable salt according to claim 1 to at least partially deplete said cell population of CD3-bearing cells; and

(c) reinfusing the treated cell population into the patient.

25. A method for treatment or prophylaxis against graft versus host disease in patient to undergo a bone marrow transplant comprising:

(a) providing an inoculum comprising isolated bone marrow and/or stem cell-enriched peripheral blood cells of a suitable donor treated with a T-cell depleting effective amount of a recombinant immunotoxin polypeptide or its pharmaceutically acceptable salt according to claim 1; and

(b) transplanting the inoculum into the patient.

26. A method for the treatment or prophylaxis or treatment of transplant rejection in a patient to undergo a bone marrow transplant comprising:

(a) reducing the levels of viable CD3-bearing cell population in the patient;

(b) providing an inoculum comprising isolated bone marrow and/or stem cell-enriched peripheral blood cells of a suitable donor treated with a T-cell depleting effective amount of a recombinant immunotoxin polypeptide or its pharmaceutically acceptable salt according to claim 1; and

(c) introducing the inoculum into the patient, and thereafter optionally administering a recombinant immunotoxin polypeptide according to claim 1 to the patient to further deplete donor and patient T cells.

27. A method of conditioning a patient to be transplanted with cells, or a tissue or organ of a donor, the method comprising:

(a) depleting the CD3-bearing cell population in the patient;

(b) providing an inoculum comprising isolated bone marrow and/or stem-cell enriched peripheral blood cells of the donor treated with a T-cell depleting effective amount of a recombinant immunotoxin polypeptide or its pharmaceutically acceptable salt according to claim 1;

(c) introducing the inoculum into the patient; and

(d) transplanting the donor cells, tissue or organ into the patient.

28. A method according to claim 21 comprising co-administering the recombinant immunotoxin polypeptide or its pharmaceutically acceptable salt with at least one other pharmaceutical agent selected from cyclosporin A, rapamycin, 40-O-(2-hydroxy)ethyl rapamycin (RAD), FK-506, mycophenolic acid, mycophenolate mofetil (MMF), cyclophosphamide, azathioprene, leflunomide, mizoribine, a deoxyspergualine compound or derivative or analog, 2-amino-2-[2-(4-octylphenyl)ethyl]propane-1,3-diol, corticosteroids, anti-LFA-1 and anti-ICAM antibodies, and other antibodies that prevent co-stimulation of T cells.

29. A pharmaceutical composition comprising a recombinant immunotoxin polypeptide or its pharmaceutically acceptable salt according to claim 1 in a pharmaceutically acceptable carrier.

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